

FORM PTO-1390 (Modified)  
(REV 10-95)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371

1247-0861-3V PCT

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

09/486706

INTERNATIONAL APPLICATION NO.

PCT/FR98/01889

INTERNATIONAL FILING DATE

03 SEPTEMBER 1998

PRIORITY DATE CLAIMED

05 SEPTEMBER 1997

TITLE OF INVENTION

VEHICLE DOOR

APPLICANT(S) FOR DO/EO/US

Alwin TIMMERMANN

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
  - a. ☐ is transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☒ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☒ A copy of the International Search Report (PCT/ISA/210).
8. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
9. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
10. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).

**Items 13 to 18 below concern document(s) or information included:**

13. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☐ A **FIRST** preliminary amendment.  
A **SECOND** or **SUBSEQUENT** preliminary amendment.
16. ☐ A substitute specification.
17. ☐ A change of power of attorney and/or address letter.
18. ☐ Certificate of Mailing by Express Mail
19. ☒ Other items or information:

Request for Consideration of Documents Cited in International Search Report  
Notice of Priority  
Drawings ( 2 Sheets )

U.S. APPLICATION NO. IF KNOWN, SERIAL NO. <span style="font-size: 1.5em; font-weight: bold;">097/486706</span>	INTERNATIONAL APPLICATION NO. <span style="font-size: 1.5em; font-weight: bold;">PCT/FR98/01889</span>	ATTORNEY'S DOCKET NUMBER <span style="font-size: 1.5em; font-weight: bold;">1247-0861-3V PCT</span>
--	--	--

The following fees are submitted:

**BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :**

☒ Search Report has been prepared by the EPO or JPO ..... \$840.00

☐ International preliminary examination fee paid to USPTO (37 CFR 1.482) ..... \$670.00

☐ No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) ..... \$760.00

☐ Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... \$970.00

☐ International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) ..... \$96.00

CALCULATIONS    PTO USE ONLY

ENTER APPROPRIATE BASIC FEE AMOUNT =

Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492 (e)). ☐ 20    ☒ 30

\$840.00

\$130.00

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	
Total claims	- 20 =	0	x \$18.00	\$0.00
Independent claims	- 3 =	0	x \$78.00	\$0.00
Multiple Dependent Claims (check if applicable). <span style="float: right;"><input type="checkbox"/></span>				\$0.00
TOTAL OF ABOVE CALCULATIONS =				\$970.00
Reduction of 1/2 for filing by small entity, if applicable. Verified Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28) (check if applicable). <span style="float: right;"><input type="checkbox"/></span>				\$0.00
SUBTOTAL =				\$970.00
Processing fee of \$130.00 for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492 (f)). <span style="float: right;"><input type="checkbox"/> 20    <input type="checkbox"/> 30</span>				\$0.00
TOTAL NATIONAL FEE =				\$970.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable). <span style="float: right;"><input type="checkbox"/></span>				\$0.00
TOTAL FEES ENCLOSED =				\$970.00
				Amount to be refunded \$
				charged \$

☒ A check in the amount of **\$970.00**

☐ Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \_\_\_\_\_

☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. **15-0030**

to cover the above fees is enclosed.

to cover the above fees.

A duplicate copy of this sheet is enclosed.

A duplicate copy of this sheet is enclosed.

**NOTE:** Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

**SEND ALL CORRESPONDENCE TO:**

**OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.**  
 1755 Jefferson Davis Highway, Fourth Floor  
 Crystal Square Five  
 Arlington, Virginia 22202  
 703-413-3000

SIGNATURE

**C. Irvin McClelland**  
 NAME

**21,124**  
 REGISTRATION NUMBER

DATE

**WILLIAM E. BEAUMONT**  
**REGISTRATION NUMBER 30,996**

09/486 706  
Rec'd PCT/PTC 26 JUN 2000

Docket No. 1247-0861-3V PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: :  
ALWIN TIMMERMANN : ATTN: APPLICATION DIVISION  
SERIAL NO: 09/486,706 :  
FILED: MARCH 6, 2000 :  
FOR: VEHICLE DOOR

PRELIMINARY AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

Prior to examination on the merits, please amend the above-identified application as follows.

IN THE CLAIMS

Please amend the claims as follows.

Claim 3, line 1, replace "Claims 1 or 2" with --Claim 1--.

Claim 6, line 1, delete "or 2".

Claim 8, lines 1-2, replace "one of the preceding claims" with --Claim 1--.

REMARKS

Claims 1-9 are active in this application.

Claims 3, 6 and 8 have been amended to depend from Claim 1 only. No new matter is believed to have been added to this application by these amendments.

Applicant submits that the present application is ready for examination on the merits.

Early notice to this effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



Norman F. Oblon  
Attorney of Record  
Registration No. 24,618

James J. Kelly, Ph.D.  
Registration No. 41,504

Crystal Square Five - Fourth Floor  
1755 Jefferson Davis Highway  
Arlington, VA 22202  
(703) 413-3000  
Fax #: (703) 413-2220  
NFO/JK

WILLIAM E. BEAUMONT  
REGISTRATION NUMBER 30,996

I:\atty\JK\04-00\12470861.PR

2/PRTS

09/486706

514 Rec'd PCT/PTO 06 MAR 2000

VEHICLE DOOR

The invention relates to a vehicle door comprising a door structure, consisting of an outer wall and of lower and lateral walls and which is open towards the inside of the vehicle, an equipment support which can be fixed to the door structure and which bears already fixed equipment such as the window glass, the mechanisms for driving and guiding its movement, and the like. The equipment support essentially supports equipment which is decisive in terms of weight and/or which exerts and/or transmits forces. The vehicle door also comprises an interior lining. The equipment support is arranged between the outer wall of the door and the interior lining.

A modular-type construction for vehicle doors, whereby the equipment support is produced in the shape of a flat plate with fixings and openings, is known (DE-A-195 09 282). An interior trim lining may be fixed to the bearing plate, this lining having a shape that corresponds to the desired style.

The bearer plate and the trim lining are not stable enough to be handled as a module until they are assembled together.

However, after this pre-assembly, there is a risk that the trim lining might become damaged during installation in the door and that it might be necessary to replace it.

Such vehicle doors are also, for example, described in documents DE-A1-32 09 052 and DE-A1-323 17 640.

According to these embodiments, the equipment support is also a continuous support plate made of sheet metal or glass-fibre-reinforced polyester resin. To improve rigidity, the support plate has reinforcements, for example reinforcing ribs or, alternatively, reinforcing tubes are formed in the equipment support or slipped into corresponding passages in the equipment support. On the side facing

- 2 -

towards the inside of the vehicle, the equipment support plate has an interior covering, preferably a layer of foam covered with fabric and/or flocked. The equipment support plate has moulded-in cavities and/or  
5 hollow spaces in which the equipment and/or bits of equipment are arranged and fixed to the support plate before the latter is screwed to the door structure.

The object of the invention is to improve a vehicle door with such a basic structure in such a way  
10 that the equipment support fulfils its function without the need for any additional reinforcement, while at the same time optimizing the use of the space available in the door structure and that the door, in its entirety, be produced at lower cost.

This object is achieved according to the invention by a vehicle door which has the characteristics set out in Claim 1.  
15

The equipment support, comprising at least one region in the form of a double-shell box structure, resistant to warping, consisting of two continuous  
20 walls which are spaced apart and parallel to the outer wall of the door, forms an element which is stable without the participation of an interior trim lining or other elements.

Furthermore, with the outer surface of the box structure which faces towards the outer wall of the door, extending a limited distance away from and parallel to the line of movement of the window glass which can be dropped down into the space between the  
30 outer wall of the door and the said surface of the box structure, the use of the restricted space in the door structure is optimized. It must be emphasized that, on all modern motor cars, the door side windows which can move are curved, at least cylindrically, in order to  
35 reduce the resistance to the air. The said line of movement is therefore usually curved. The described shape of the surface of the equipment support, facing towards the window pit or the outer skin of the door

- 3 -

uses the said marginal condition to reinforce the surface without additional elements.

Openings may also be provided in the box structure for installing equipment such as loudspeakers or the like. Advantageously, all of these openings are made on that face of the equipment support which faces towards the inside of the vehicle, and they do not affect its inherent rigidity.

That surface of the region of the equipment support in the form of a box structure and facing towards the outer skin of the door bounds the so-called wet zone, which essentially consists of the window pit. Equipment (for example: the window lifter drive mechanism, the guide rails) generally has to be installed from this side. Appropriate fastening means may be provided on this outer side of the box structure. In each case, the number and size of the openings needed in the surface of the outer wall must be minimized. Thus, the closed wall of the box structure region constitutes a durable barrier against the ingress of dirt and moisture from the wet zone towards the inside of the box structure and inside of the vehicle.

The wall which faces towards the inside of the vehicle may be designed directly according to the stylistic ideas of the day, without having to account for the technical requirements for the mounting of equipment. Thus, using the equipment support according to the invention, the technical functions and the various decorative functions are entirely separate from one another, this being an enormous advantage as far as the freedom it gives in the design of the interior side of the door is concerned.

Depending on the manufacturing options, it is possible to produce the region of the equipment support that is in the form of a box structure in several parts, for example in two parts, each part forming one wall, or as a single element, for example produced by blow-moulding or pressing from a part-finished plastic

- 4 -

product. The use of blow-moulding manufacturing techniques in the production of very complex shapes such as fuel tanks made out of cured plastic is known.

For multi-part embodiments the two shell or  
5 dish-shaped parts of the equipment support are preferably fixed together along the entire periphery of the two shells or, if one of the shells is smaller than the other, along the entire periphery of the smaller of the shells, for example by bonding or welding. Thus,  
10 the box structure of the equipment support acquires particularly high rigidity and resistance to warping.

One embodiment of the invention will be described hereinafter in greater detail with the aid of the figures, which depict:

15 - Figure 1: an exploded view of a vehicle door according to the invention,

- Figure 2: a diagrammatic sectioned view of the box structure region of the equipment support, on the line II-II of Figure 1.

20 The door according to the invention comprises a conventional metal construction with a lower door structure 1 forming a well and a surround for a window 2, the surround being fixed to the door structure. The door structure has an outer wall 3, a lower wall 4 and  
25 lateral walls 5 and 6. The lower wall 4 and the lateral walls 5 and 6 may consist of separate rigid frame elements made of rectangular section pieces but may preferably also consist of pressed sheet metal. They comprise fixing flanges 7 and form a broad opening in  
30 which the equipment support is placed and screwed to the fixing flanges 7.

The equipment support depicted here in several parts, comprises a shaped piece 8, essentially in the shape of a shell and a shaped piece 12, also  
35 essentially in the form of a shell. The surface dimensions of the two shaped pieces 8 and 12 with shell-shaped regions and their geometrical configuration at the edges of their shell are tailored to suit each other, so that the shaped piece 12 can be

00136706-00000



- 5 -

fixed to the shaped piece 8 forming a box structure section with a closed edge right around the periphery of the said box structure. In the case of thermoplastic or metallic materials, the two shaped pieces are  
5 preferably fixed together along their edge by welding.

It may already be noted that the shaped piece 8 comprises two open hollows 9, 22 in the plane of separation of the two-part equipment support, at least one of the hollows forming part of the box structure  
10 that is to be formed. The hollows consist of the bottoms of dished regions and of lateral walls. The latter run transversely to the plane of separation of the equipment support. They essentially determine its volume and thus play an important part in its  
15 mechanical strength.

The shape of the box structure in the region of the largest hollow 9 will be discussed again in greater detail later with reference to Figure 2.

It must be noted that the shaped piece 8 may  
20 also have just one hollow. In this particular instance, the recessed areas between the two hollows 9 and 22 can be used as a space in which to mount certain equipment items in the wet zone, but is not required in all scenarios.

In the scenario depicted, the shaped piece 12  
25 facing towards the inside of the vehicle does not extend over the entire surface of the shaped piece 8, but covers only about two thirds of its surface. This is, however, entirely sufficient in this scenario  
30 because all of the equipment items which exert mechanical forces on the shaped piece 8 are placed in this region of the shaped piece 8 which is covered by the shaped piece 12 and thus perfectly mechanically stable. The connection with the shaped piece 12 gives  
35 this region of the equipment support particularly good rigidity, this system forming a stable box structure.

The shaped piece 12 may, in theory, be designed and dimensioned from other points of view. Firstly, it is necessary, in this instance, to take account of the

- 6 -

fact that the shaped piece 12 has to improve the rigidity of the shaped piece 8. At the same time, it is also necessary to take account of the fact that rather high tensile forces are transmitted to the shaped piece 12 when the door handle 14 is actuated, and this has to be taken into consideration when dimensioning and designing the shaped piece 12.

The two shaped pieces 8 and 12 may naturally be manufactured from any material whatsoever, as long as it has the necessary strength and resistance to deformation. In particular, they may be manufactured of pressed sheet metal or of an appropriate polymer, or, in particular, may also be made of glass-fibre-reinforced plastic, moulding being performed according to the known and customary methods.

The equipment items may be placed and arranged in and fixed to the shaped piece 8 in the known and customary way, and this is not depicted in the example described here. Essentially, the slideways for guiding the moving window glass in a vertical direction, the window glass itself, and the window lifter mechanism, are fixed to this shaped piece 8. This equipment is mounted on the shaped piece 8 during a separate assembly stage. The shaped piece 12 may already be fixed to the shaped piece 8 prior to the mounting of the equipment, but it is also possible for the two shaped pieces to be connected after the equipment has been mounted.

The door module prepared in this way, consisting of the equipment support, the window glass and all the equipment, is placed in the door structure at the time of final assembly of the vehicle or of the vehicle door, and is screwed to the fixing flanges 7.

A sealing barrier may be formed between the wet zone and the interior space of the vehicle by a seal fitted between the fixing flanges 7 and the periphery of the equipment support fixed thereto. The seal may, for example, be made of an extrudable sealing foam.

- 7 -

The shaped piece 8 and the shaped piece 12 are fitted with push-fit or clip-fastening elements not depicted in detail here, which allow other elements to be attached quickly and simply to the interior face of the door. Thus, for example, a door handle component 14 may be placed in a corresponding recess 15, a loudspeaker 16 may be placed in an appropriate opening 17, and a cover grille 18 for the loudspeaker 16 may be placed in a corresponding hollow 19. A shaped piece 20, which consists of an appropriate foam material and is, for example, equipped with an arm rest surface 21, is arranged in the corresponding hollow 22 of the equipment support and affords impact protection. Finally, a shaped piece 24 is also arranged on the equipment support or on the fastening flange 7 of the door box structure and constitutes the window rest, and a shaped piece 26 is arranged near the bottom of the door to form a home for maps, a shaped piece 28 in the form of a moulding being inserted between these two shaped parts and constituting a lateral closure in the form of a frame element. Additional coatings of the shaped piece 12 are not needed, and those surfaces of the shaped piece 12 which are not covered by the aforementioned pieces are designed directly to be decorative surfaces.

The view in section on the line II-II of Figure 1 that is Figure 2 shows that the window drops down inside the door structure along a curved line of movement F. This lies in the wet zone of the vehicle door. That wall of the equipment support which faces towards the outside of the door represents the closed end wall of the hollow 9 of the shaped part 8. The closed end of the hollow is parallel and as close as possible to the line of movement F and because its surface is curved is inherently very strong. Together with the side walls of the hollow 9, this thus constitutes a stable half box structure which may be closed by the shaped part 12. It will be understood that the size of the equipment support in proportion to

- 8 -

the interior door space allows the maximum use to be made of this space.

The sectioned view also depicts a loudspeaker 16 and the grille 18 which covers it, both fixed in the shaped part 12. The closed end of the hollow in the shaped part 8 also constitutes a reliable barrier against the ingress of dirt and moisture from the wet zone of the door. It is possible to avoid producing an additional seal in the sensitive areas such as the sites of loudspeakers.

The curvature of the closed end of the hollow also has the advantage of comprising the guide rails for the drop glass, these being closely fixed, that is to say in direct contact with the closed end of the hollow. These rails can therefore be fixed to the equipment support without spacing pieces or other elements, at a lower cost and with the best possible support.

When the equipment support is made as a single piece, the use of the space may be further enhanced because the separating or fixing flange of the two parts 8 and 12 visible in Figure 2 can be omitted or replaced by projecting fixing means of limited extent.

The hollow 22 intended for the insertion of the shaped piece 20 which affords impact protection is as deep as the hollow 9. It is thus possible to fix a particularly thick impact absorber, which increases the passive safety of the vehicle door. It is possible to dispense with a separate trim lining if the shaped part 20 is equipped with a decorative material. In this case, the equipment support is not made as two shells in this region.

- 9 -

## CLAIMS

1. Vehicle door comprising:
- a door structure consisting of an outer wall (3) and of a lower wall (4) and lateral walls (5, 6) and which is open towards the inside of the vehicle,
  - an equipment support which can be fixed to the door structure, comprising already mounted equipment such as the window glass, the window lifter mechanism, the window lifter motor and the like, and which essentially supports equipment which is decisive in terms of weight and/or which exerts and/or transmits forces,
  - an interior trim lining,
- characterized in that the equipment support comprises at least one region in the form of a double-shell box structure, resistant to warping, with two continuous walls which are spaced apart and parallel to the outer wall of the door, and in that the outer surface of the box structure facing towards the outer door wall (3) is parallel and close to a line (F) along which the window, which can be dropped down into the space between the outer wall (3) of the door and the said surface of the box structure moves, and in that the inner surface of the box structure facing towards the inside of the vehicle is equipped with attachment means for mounting the equipment destined for the inside of the vehicle, such as the door handle, loudspeakers or the like.
2. Vehicle door according to Claim 1, characterized in that the line of movement (F) and the surface of the box structure parallel to it are curved.
3. Vehicle door according to Claims 1 or 2, characterized in that the equipment support is made up of two shaped parts (8, 12).
4. Vehicle door according to Claim 3, characterized in that the shaped parts (8, 12) have rather similar dimensions and are fixed firmly together around their entire periphery.

5. Vehicle door according to Claim 3, characterized in that one of the two shaped parts (12) has smaller dimensions than the other shaped part (8).

6. Vehicle door according to Claim 1 or 2,  
5 characterized in that the equipment support is made as  
a single piece and in that the region in the form of a  
box structure has openings or recesses for installing  
equipment.

7. Vehicle door according to Claim 6,  
10 characterized in that the openings or recesses are  
provided only on that side of the box structure-shaped  
region that faces towards the inside of the vehicle.

8. Vehicle door according to one of the preceding claims, characterized in that a body of foam (20) is placed in a hollow (22) of the equipment support in order to afford side impact protection.

9. Vehicle door according to Claim 1, characterized in that the wall of the equipment support which faces towards the inside of the vehicle is designed according to stylistic ideas of the day.

[illegible]

- 11 -

PATENT

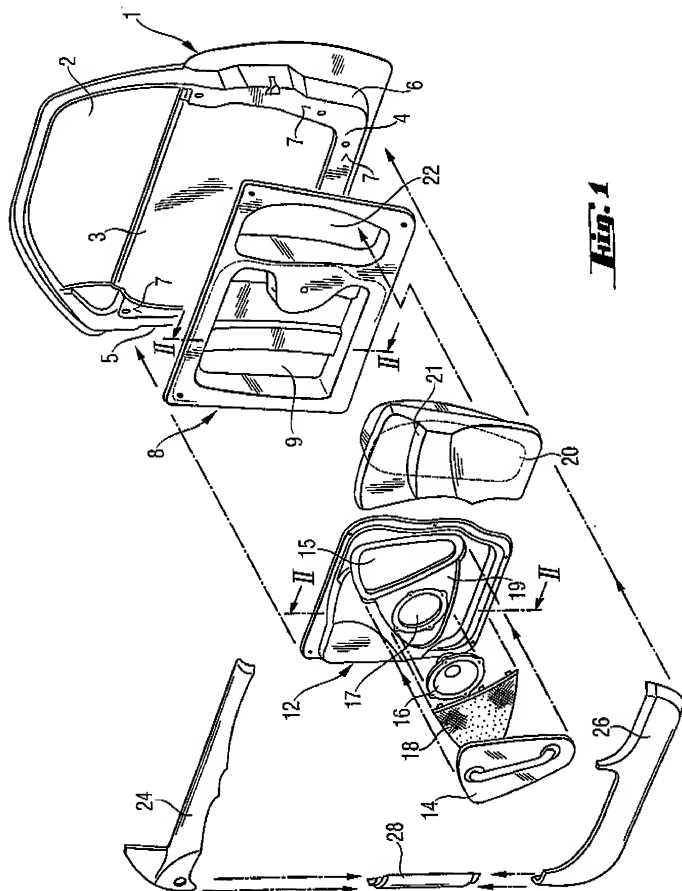
VEHICLE DOOR

ABSTRACT

The invention relates to a vehicle door comprising a door structure, an equipment support associated with pre-mounted equipment, which can be fixed to the said structure, and an interior trim lining.

According to the invention, the equipment support comprises at least one region in the form of a double-shell box structure, the outer surface of which is parallel and close to the line (F) along which the window glass moves and the inner surface of which is equipped with attachment means for mounting equipment destined for the inside of the vehicle.

Figure 1





OBLON ET AL (703) 413-3000

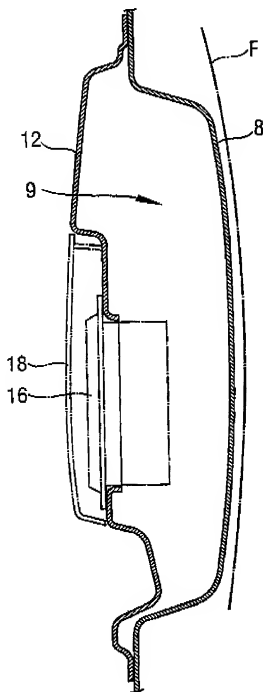
DOCKET # 1247-ORL-3VRT SHEET 2 OF 2

09/486706

**PCT/FR98/01889**

**WO 99/12757**

2 / 2



**Fig. 2**

# Declaration and Power of Attorney for Patent Application

## Erklärung für Patentanmeldungen mit Vollmacht

### German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit an  
Eides Statt:

As a below named inventor, I hereby declare that:

daß mein Wohnsitz, meine Postanschrift und meine Staatsangehörigkeit den im nachstehenden nach meinem Namen aufgeführten Angaben entsprechen, daß ich nach bestem Wissen der ursprüngliche, erste und alleinige Erfinder (falls nachstehend nur ein Name angegeben ist) oder ein ursprünglicher erster und Mitentfinder (falls nachstehend mehrere Namen aufgeführt sind) des Gegenstandes bin, für den dieser Antrag gestellt wird und für den ein Patent für die Erfindung mit folgendem Titel beantragt wird

My residence, post office address and citizenship are as stated next to my name

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

VEHICLE DOOR

deren Beschreibung

the specification of which.

ist beigefügt

☐ is attached hereto

wurde angemeldet am \_\_\_\_\_

☒ was filed on 06 March 2000

unter der US-Anmeldenummer oder unter der Internationalen Anmeldenummer im Rahmen des Vertrags über die Zusammenarbeit auf dem Gebiet des Patentwesens (PCT)

as United States Application Number or PCT International Application Number

09/486,706

and was amended on

(if applicable)

\_\_\_\_\_ und am

\_\_\_\_\_ abgeändert (falls zutreffend)

Ich bestätige hiermit, daß ich den Inhalt der oben angegebenen Patentanmeldung, einschließlich der Ansprüche, die eventuell durch einen oben erwähnten Zusatzantrag abgeändert wurde, durchgesehen und verstanden habe

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

Ich erkenne meine Pflicht zur Offenbarung jeglicher Informationen an, die zur Prüfung der Patentfähigkeit in Einklang mit Titel 37, Code of Federal Regulations § 1.56 von Belang sind

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56

## German Language Declaration

Ich beanspruche hiermit ausländische Prioritätsvorteile gemäß Title 35, US-Code § 119(a)-(d), bzw. § 365(b) aller unter aufgeführten Auslandsanmeldungen für Patente oder Erfindurkunden oder § 365(a) aller PCT internationalen Anmeldungen, welche wenigstens ein Land ausser den Vereinigten Staaten von Amerika benennen, und habe nachstehend durch ankreuzen sämtliche Auslandsanmeldungen für Patente oder Erfindurkunden oder PCT internationale Anmeldungen angegeben, deren Anmeldetag dem der Anmeldung für welche Priorität beansprucht wird, vorangeht.

Prior foreign application(s)  
(Frühere ausländische Anmeldungen)

197 38 853.1 GERMANY

(Number)  
(Nummer) (Country)  
(Land)

(Number)  
(Nummer) (Country)  
(Land)



Ich beanspruche hiermit Prioritätsvorteile unter Title 35, US-Code § 119(e) aller US-Hilfsanmeldungen wie unten aufgezählt.

(Application No.) (Filing Date)  
(Aktenzeichen) (Anmeldetag)

Ich beanspruche hiermit die mir unter Title 35, US-Code § 122 zustehenden Vorteile aller unten aufgeführten US-Patentanmeldungen bzw. § 365(c) aller PCT internationalen Anmeldungen, welche die Vereinigten Staaten von Amerika benennen und erkenne, insofern der Gegenstand eines jeden früheren Anspruchs dieser Patentanmeldung nicht in einer US-Patentanmeldung bzw. PCT internationalen Anmeldung in einer gemäß dem ersten Absatz von Title 35, US-Code § 112 vorgeschriebenen Art und Weise offenbart wurde, meine Pflicht zur Offenbarung jeglicher Informationen an die zur Prüfung des Patentfähigkeit in Einklang mit Title 37, Code of Federal Regulations § 1.56 von Belang sind und die im Zeitraum zwischen dem Anmeldetag der früheren Patentanmeldung und dem nationalen oder PCT internationalen Anmeldetag der Patentanmeldung auf dem Gebiet des Patentwesens (PCT) gültigen internationalen Anmeldetags bekannt geworden sind.

PCT/FR98/01889

(Application No.)  
(Aktenzeichen)

03 September 1998

(Filing Date)  
(Anmeldetag)

(Application No.)  
(Aktenzeichen)

(Filing Date)  
(Anmeldetag)

Ich erkläre hiermit, daß alle in der vorliegenden Erklärung von mir gemachten Angaben nach bestem Wissen und Gewissen der Wahrheit entsprechen, und ferner daß ich diese eidstattliche Erklärung in Kenntnis dessen ablege, daß wissentlich und vorsätzlich falsche Angaben oder dergleichen gemäß § 1001 Title 18 des US-Code strafbar sind und mit Geldstrafe und/oder Gefängnis bestraft werden können, und daß derartige wissentlich und vorsätzlich falsche Angaben als rechtswirksamkeit der vorliegenden Patentanmeldung oder eines anderen und deren erteilten Patentes gefährden können.

I hereby claim foreign priority under Title 35, United States Code, § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Priority claimed

Priorität beansprucht

05 September 1997

(Day/Month/Year Filed)  
(Tag/Monat/Jahr der Anmeldung)

(Day/Month/Year Filed)  
(Tag/Monat/Jahr der Anmeldung)

☒ No  
Ja Nein  
☐ No  
Ja Nein

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below

(Application No.) (Filing Date)  
(Aktenzeichen) (Anmeldetag)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

(Status) (patented, pending, abandoned)  
(Status) (patentiert, schwebend, aufgegeben)

(Status) (patented, pending, abandoned)  
(Status) (patentiert, schwebend, aufgegeben)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

## German Language Declaration

VERTRETUNGSVOLLMACHT: Als benannter Erfinder beauftrage ich hiermit den (die) nachstehend aufgeführten Patentanwalt (Patentanwälte) und/oder Vertreter mit der Verfolgung der vorliegenden Patentanmeldung sowie mit der Abwicklung aller damit verbundenen Angelegenheiten vor dem US-Patent- und Markenamt (Name(n) und Registrationsnummer(n) auflisten)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

Norman F. Oblon, Reg. No. 24,618; Marvin J. Spivak, Reg. No. 24,913; C. Irvin McClelland, Reg. No. 21,124; Gregory J. Maier, Reg. No. 25,599; Arthur I. Neustadt, Reg. No. 24,854; Richard D. Kelly, Reg. No. 27,757; James D. Hamilton, Reg. No. 28,421; Eckhard H. Kuesters, Reg. No. 28,870; Robert T. Pous, Reg. No. 29,089; Charles L. Gholz, Reg. No. 26,395; William E. Beaumont, Reg. No. 30,996; Jean-Paul Lavalleye, Reg. No. 31,451; Stephen G. Baxter, Reg. No. 32,884; Richard L. Treanor, Reg. No. 36,379; Steven P. Weihrouh, Reg. No. 32,828; John T. Goolkasian, Reg. No. 26,142; Richard L. Chinn, Reg. No. 34,305; Steven E. Lipman, Reg. No. 30,011; Carl E. Schlier, Reg. No. 34,426; James J. Kulbaski, Reg. No. 34,648; Richard A. Nefield, Reg. No. 35,299; J. Derek Mason, Reg. No. 35,270; Surinder Sachar, Reg. No. 34,423; Christina M. Gadiano, Reg. No. 37,628; Jeffrey B. McIntyre, Reg. No. 36,867; William T. Enos, Reg. No. 33,128; Michael E. McCabe, Jr., Reg. No. 37,182; Bradley D. Lytle, Reg. No. 40,073; and Michael R. Casey, Reg. No. 40,294, with full powers of substitution and revocation.

Postanschrift

Send Correspondence to:

**OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.**

FOURTH FLOOR  
1755 JEFFERSON DAVIS HIGHWAY  
ARLINGTON, VIRGINIA 22202 U.S.A.

Telefonische Auskünfte:  
(Name und Telefonnummer)

Direct Telephone calls to: (name and telephone number)

(703) 413-3000

Vor- und Zuname des einzigen oder ersten Erfinders

Full name of sole or first inventor

**Alwin TIMMERMAN**

Unterschrift des Erfinders

Datum

Inventor's signature

Date

*A. Timmerman* 5/19/00

Wohnsitz

Residence **Geilenkircher Strasse 7,**

Staatsangehörigkeit

Citizenship

**D-50933 Köln, GERMANY**

**GERMANY**

Postanschrift

Post Office Address

**same as above**

Vor- und Zuname des zweiten Miterfinders (falls zutreffend)

Full name of second joint inventor, if any

Unterschrift des zweiten Erfinders

Datum

Second inventor's signature

Date

Wohnsitz

Residence

Staatsangehörigkeit

Citizenship

Postanschrift

Post Office Address

(Im Falle dritter und weiterer Miterfinder sind die entsprechenden Informationen und Unterschriften hinzuzufügen)

(Supply similar information and signature for third and subsequent joint inventors.)